

FORM PTO-1140
(REV. 10-96)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

6005-4018

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/462746

INTERNATIONAL APPLICATION NO.
PCT/FR99/01179INTERNATIONAL FILING DATE
18 May 1999 (18.05.99)PRIORITY DATE CLAIMED
20 May 1998 (20.05.98)TITLE OF INVENTION
BAG FOR PACKAGING LIQUID SUBSTANCES FOR ANIMAL ARTIFICIAL INSEMINATION

APPLICANT(S) FOR DO/EO/US

Jean-Gerard SAINT-RAMON, et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)), with Verification of Translation.
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
 - Copy of the published International Application No. WO 99/59498;
 - Executed Verified Statement (Declaration) Claiming Small Entity Status - Small Business Concern;

INTERNATIONAL APPLICATION NO.
PCT/FR99/01179ATTORNEY'S DOCKET NUMBER
6005-401817 ☒ The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):

Search Report has been prepared by the EPO or JPO \$840.00

International preliminary examination fee paid to USPTO (37 CFR 1.482) \$670.00

No international preliminary examination fee paid to USPTO (37 CFR 1.482)
but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$760.00Neither international preliminary examination fee (37 CFR 1.482) nor
international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$970.00International preliminary examination fee paid to USPTO (37 CFR 1.482)
and all claims satisfied provisions of PCT Article 33(2)-(4) \$96.00

ENTER APPROPRIATE BASIC FEE AMOUNT =

CALCULATIONS PTO USE ONLY

840.00

\$ 840.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30
months from the earliest claimed priority date (37 CFR 1.492(e)).

\$

CLAIMS

NUMBER FILED

NUMBER EXTRA

RATE

Total claims 21 - 20 = 1 X\$18.00 \$ 18.00

Independent claims 1 - 3 = 0 X\$78.00 \$ -

MULTIPLE DEPENDENT CLAIM(S) (if applicable) +\$260.00 \$ -

TOTAL OF ABOVE CALCULATIONS = \$ 858.00

Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement
must also be filed (Note 37 CFR 1.9, 1.27, 1.28). \$ 429.00

SUBTOTAL = \$ 429.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30
months from the earliest claimed priority date (37 CFR 1.492(f)). \$

TOTAL NATIONAL FEE = \$ 429.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property + \$

TOTAL FEES ENCLOSED = \$ 429.00

Amount to be:

refunded \$

charged \$

a. ☒ A check in the amount of \$ 429.00 to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 13-4500. A duplicate copy of this sheet is enclosed.

Order No. 6005-4018

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO

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NAME

26,710

REGISTRATION NUMBER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (DO/EO/US)

Applicant : Jean-Gérard SAINT-RAMON, et al.
International
Application No. : PCT/FR99/01179
International
Filing Date : 18 May 1999 (18.05.99)
US Serial No. : To be Assigned Group Art Unit: To be Assigned
US Filing Date : January 12, 2000 Examiner: To be Assigned
For : BAG FOR PACKAGING LIQUID SUBSTANCES
FOR ANIMAL ARTIFICIAL INSEMINATION

Assistant Commissioner for Patents
Box PCT
Washington, DC 20231

Attention: DO/EO/US

PRELIMINARY AMENDMENT

Sir:

With respect to the above-identified international application entering the national phase and prior to examination on the merits, kindly amend the application as follows:

In the caption for the above-identified patent application, amend the title of the application as follows:

[Bag] Pouch For Packaging [Liquid Substances For Animal
Artificial Insemination] Liquids For Artificially Inseminating
Animals

IN THE SPECIFICATION

On page 1, between lines 2 and 3 insert the following section heading --FIELD OF INVENTION--.

On page 1, between lines 5 and 6 insert the following section heading --

09462746-011200

BACKGROUND OF THE INVENTION--.

On page 1, between lines 17 and 18 insert the following section heading --
SUMMARY OF THE INVENTION--.

On page 4, between lines 28 and 29 insert the following section heading --BRIEF
DESCRIPTION OF THE DRAWINGS--.

On page 5, between lines 10 and 11, insert the following section heading --
DETAILED DESCRIPTION OF THE INVENTION--.

IN THE CLAIMS

Amend Claims 1-21 as follows:

1. (Amended) A pouch [(1)] for packaging liquids for artificially inseminating animals, comprising two thermoplastics material films welded together by a weld [(2)] delimiting a pouch [(3)] along a closed path of generally rectangular shape defining two shorter sides (x) and (x') and two longer sides (z) and (z') when the pouch is empty and one of which shorter sides (x) is interrupted, the weld defining from said interruption a filler passage [(4)], defining a filler part [(17)] in said thermoplastics material films, characterized in that the other shorter side (x') is interrupted, the weld [(2)] defining a drain part [(11)] in said thermoplastics material films.

2. (Amended) A pouch according to claim 1, wherein [characterized in that] at least one of the two thermoplastics material films has a peelable area [(12)] in the drain part [(11)].

3. (Amended) A pouch according to claim 2, wherein [characterized in that] the peelable area includes a sealing and peelable material.

4. (Amended) A pouch according to claim 3, wherein [characterized in that] the sealing and peelable material is wax.

5. (Amended) A pouch according to claim 1, wherein [any one of claims 1 to 4, characterized in that] the drain passage is extended by a flare [(10)].

6. (Amended) A pouch according to claim 1, wherein [any one of claims 1 to 5, characterized in that] said two thermoplastics material films are offset relative to each other in the drain part.

7. (Amended) A pouch according to claim 6, wherein [characterized in that] the offset is approximately 2 to 3 mm.

8. (Amended) A pouch according to claim 1, [any one of claims 1 to 7] containing a liquid [, characterized in that it] that has been sealed in a sealing area [(13)] within said peelable area, in the vicinity of the drain part of the drain passage, substantially transversely to the axis thereof.

9. (Amended) A pouch according to claim 8, wherein [characterized in that] the sealing area has a triangular shape in cross section.

10. (Amended) A pouch according to claim 8, wherein [characterized in that] the sealing area has an inverted V-shape in cross section.

11. (Amended) A pouch according to claim 1, wherein [any one of claims 1 to 10, characterized in that] part of the thermoplastics films constitutes a colored part [(14)].

12. (Amended) A pouch according to claim 11, wherein [characterized in that] the colored part includes an identifier.

13. (Amended) A pouch according to [any one of claims 1 to 11, characterized in that] claim 1, wherein part of the thermoplastics films constitutes a marking area [(15)].

14. (Amended) A pouch according to claim 11, wherein [characterized in that] the marking area [(15)] includes an identification marking.

15. (Amended) A pouch according to claim 14, wherein [characterized in that] the identification marking is adapted to be seen through the film, which is transparent.

16. (Amended) A pouch according to claim 1, wherein [any one of claims 1 to 15, characterized in that] at least one of the two thermoplastics material films has a peelable area in the filler part [(17)].

17. (Amended) A pouch according to claim 1, containing [any one of claims 1 to 16 which contains] a biologic liquid that can be used for artificial insemination.

18. (Amended) A pouch according to claim 17, wherein [characterized in that] the liquid usable for artificial insemination is chosen from animal semen, media and diluting agents.

19. (Amended) A pouch according to claim 18, wherein [characterized in that] the liquid is pig sperm.

20. (Amended) Use of a pouch according to [claims 11 and 19] claim 11 in which the color identifies a breed of pig.

21. (Amended) Use of a pouch according to [claims 14 and 19] claim 14 in which the identification marking identifies a breed of pig.

REMARKS

Reconsideration of this application as amended is respectfully requested.

The title has been amended to read "Pouch For Packaging Liquids For Artificially Inseminating Animals." The correction was necessary because of idiomatic errors in translating the original title from French to English.

The specification has been amended to insert section headings, where appropriate, in accordance with 37 C.F.R. § 1.77.

Claims 1, 2, 5, 8, 11, 13, 14, and 16 have been amended to delete the recitation therein of reference numerals that correspond to the Figures. Dependent claims 2-21 have been amended: (1) to reduce the total number of claims and thereby facilitate the prosecution of the application; and (2) eliminate any multiple dependent claims. The amendments to Claims 2-21 are formal in nature, eliminate any multiple dependent claims and introduce no new matter.

Early allowance of the claims is earnestly solicited.

Respectfully submitted,

MORGAN & FINNEGAN

Dated: January 12, 2000

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Applicant or Patentee: Jean-Gérard SAINT-RAMON et al.

Attorney's

Serial or Patent No.:

Docket No.:

Filed or Issued:

Title: "BAG FOR PACKAGING LIQUID SUBSTANCES FOR ANIMAL ARTIFICIAL INSEMINATION"

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(c))--SMALL BUSINESS CONCERN

I hereby declare that I am

☐ the owner of the small business concern identified below:

☒ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF SMALL BUSINESS CONCERN: IMV TECHNOLOGIES

ADDRESS OF SMALL BUSINESS CONCERN: 10 rue Georges Clémenceau, 61300 L'AIGLE, France

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees to the United States Patent and Trademark Office, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled "BAG FOR PACKAGING LIQUID SUBSTANCES FOR ANIMAL ARTIFICIAL INSEMINATION" by inventors Jean-Gérard SAINT-RAMON, Alain DUVAL and Mickaël BARRE described in

☒ the specification filed herewith (based on International application No. PCT/FR99/01179 filed on May 18, 1999).

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e). *NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

NAME

ADDRESS

☐ INDIVIDUAL

☐ SMALL BUSINESS CONCERN

☐ NONPROFIT ORGANIZATION

NAME

ADDRESS

☐ INDIVIDUAL

☐ SMALL BUSINESS CONCERN

☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Claude DASSIER

TITLE OF PERSON IF OTHER THAN OWNER: Deputy Managing Director

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SIGNATURE

Claude Dassier

DATE

12/16/1999



DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITE DE COOPERATION EN MATIERE DE BREVETS (PCT)

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A1

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98/06393 20 mai 1998 (20.05.98) FR

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(81) Etats désignés: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, brevet ARIPO (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), brevet eurasien (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), brevet européen (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), brevet OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Publiée

Avec rapport de recherche internationale.

(54) Title: BAG FOR PACKAGING LIQUID SUBSTANCES FOR ANIMAL ARTIFICIAL INSEMINATION

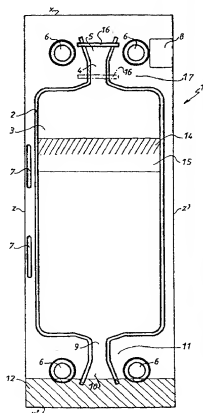
(54) Titre: SACHET DE CONDITIONNEMENT DE SUBSTANCES LIQUIDES POUR L'INSEMINATION ARTIFICIELLE ANIMALE

(57) Abstract

The invention concerns a bag (1) for packaging liquid substances for animal artificial insemination, consisting of two thermoplastic sheets soldered by a weld run (2) defining a pouch (3), along a closed generally rectangular marking defining two short sides (x) and (x') and two long sides (z) and (z') when the bag is empty, and whereof one of the short sides (x) has a break, the weld run constituting starting from said break a filling passage (4), defining in said thermoplastic sheets a filling portion (17), the other of the short sides (x') has a break, the weld run (2) constituting starting from said break a drawing passage (9), defining in said thermoplastic sheets a drawing portion (11). Preferably, at least one of said thermoplastic sheets has in the drawing portion a peel-off zone (12).

(57) Abrégé

Sachet (1) de conditionnement de substances liquides pour l'insémination artificielle animale, constitué de deux feuilles de matière thermoplastique soudées par un cordon de soudure (2) délimitant une poche (3), suivant un tracé fermé de forme générale rectangulaire définissant deux petits côtés (x) et (x') et deux grands côtés (z) et (z') lorsque le sachet est vide, et dont l'un desdits petits côtés (x) présente une interruption, le cordon de soudure déterminant en partant de ladite interruption un conduit de remplissage (4), définissant dans lesdites feuilles de matière thermoplastique une partie de remplissage (17), l'autre desdits petits côtés (x') présente une interruption, le cordon de soudure (2) déterminant en partant de ladite interruption un conduit de soutirage (9), définissant dans lesdites feuilles de matière thermoplastique une partie de soutirage (11). De préférence, au moins une des deux dites feuilles de matière thermoplastique possède dans la partie de soutirage une zone de pelabilité (12).



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430 Rec'd PCT/PTO 12 JAN 2000

WO 99/59498

PCT/FR99/01179

1

Pouch for packaging liquids for artificially inseminating animals

The present invention concerns a pouch for packaging liquids for artificially inseminating animals, in particular pigs and horses.

This type of pouch, generally called a single dose pouch, is well known in the art and is the subject matter of FR-B-2 667 504 and EP-A-718 191 in particular.

In the above pouches, the same orifice is used to fill and to empty the pouch. The pouch is filled using a filter nozzle that is gripped in the filler passage when the nozzle penetrates the pouch. It slightly deforms the insertion passage of the filler passage. The same passage is designed to receive the body of the insemination probe. Because the passage has already been stressed by the filler nozzle, the probe is sometimes held imperfectly in the passage.

The present invention overcomes this problem and provides a pouch for packaging liquids for artificially inseminating animals comprising two thermoplastics material films welded together by a weld delimiting a pouch along a closed path of generally rectangular shape defining two shorter sides and two longer sides when the pouch is empty and one of which shorter sides is interrupted, the weld defining from said interruption a filler passage defining a filler part in said thermoplastics material films, characterized in that the other shorter side is interrupted, the weld defining from said interruption a drain passage defining a drain part in said thermoplastics material films.

In the pouch of the invention, after the pouch has been filled with its contents, the filler passage is welded to close it and seal it permanently. The drain passage on the other side adapted to receive the insemination probe is welded closed.

However, problems are frequently encountered with opening these pouches when they are used and it is often necessary to employ a tool or an object to open them.

To overcome these problems, the Applicant has developed a "peelable pouch" described in FR 2 750 399 that is reliable and simple to open without using any form of tool or object. This pouch is particularly suitable for containing animal semen.

The peelable pouch described in FR 2 750 399 has a single neck with two functions:

- filling the pouch with liquid via a needle, and
- draining the liquid using an insemination probe after opening the peelable weld.

A pouch of the above kind is extremely practical but has one slight drawback in that the liquid is drawn by capillary action onto the walls of the neck when the filler needle is removed after injection. This soiling, the amount of which varies, degrades the peelable weld.

To overcome this drawback, the Applicant has considered making the "peelable" weld of the drain passage in the factory and welding the filler passage on a packaging machine. The latter weld is much easier to carry out because it is in the blank film rather than the peelable material.

In a particularly advantageous second embodiment, the invention proposes a pouch for packaging liquids for artificially inseminating animals comprising two thermoplastics material films welded together by a weld delimiting a pouch along a closed path of generally rectangular shape defining two shorter sides and two longer sides when the pouch is empty and one of which shorter sides is interrupted, the weld defining from said interruption a filler passage, wherein the other shorter side is interrupted, the weld defining from said interruption a drain passage defining a drain part in said

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thermoplastics material films, said pouch being characterized in that at least one of said two thermoplastics material films has a peelable area in the drain part.

5 According to one feature of the invention, said peelable area comprises a sealing and peelable material, for example a wax.

The drain passage can be extended by a flare.

10 According to one advantageous feature of the embodiment of the pouch in accordance with the present invention having the peelable drain weld, the two thermoplastics material films are offset relative to each other in said drain part, for example by approximately 2 to 3 mm.

15 In accordance with another feature of the embodiment of the pouch in accordance with the invention with the peelable drain weld, in which it contains a liquid, said pouch is sealed in a sealing area within said peelable area, in the vicinity of the drain part of the drain passage, substantially transversely to the axis thereof.

20 The sealing area can then have a triangular or inverted V-shape in cross section.

25 With the pouches used until now, there have been problems identifying the doses that they contain. In the case of doses of semen, for example, the dose is identified by a colored label stuck to the pouch containing the semen or by adding a coloring agent to the semen. These identification methods have had their drawbacks, in particular the risk of the label coming unstuck or of the coloring agent degrading the semen, for example.

30 The present invention proposes a pouch overcoming the above identification problems, characterized in that part of the thermoplastics films is colored. Said colored part of the films defines a colored part of the pouch. The

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colored part may include an identifier.

If the pouch contains pig semen (sperm), a color is attributed to each breed or each genetic type of pig and the colored part is that color. In this case, the color of the colored part identifies the breed or genetic type of pig concerned.

A marking area can also be provided on part of the thermoplastics films, possibly separate from the colored part. The marking area can carry an identification marking, for example a drawing.

In accordance with the invention, the identification marking is preferably seen through the film, which is transparent.

If the pouch contains pig semen (sperm), the marking area can include an identification marking for the breed and/or genetic type of pig concerned.

In the pouch of the invention, at least one of the two thermoplastics material films can have a peelable area in its drain part.

In one particularly advantageous embodiment of the invention the liquid for artificial insemination is animal semen, a medium or a diluting agent.

The invention then provides a pouch characterized in that it contains a biologic liquid usable for artificial insemination.

The liquid usable for artificial insemination is selected from animal semen, in particular pig sperm, media and diluting agents, for example.

The invention will now be described in more detail and other advantages of the invention will become more clearly apparent in the following description given by way of example only and with reference to the accompanying drawings, in which:

- Figure 1 is a view in cross section of a pouch in accordance with the invention, not yet sealed and extracted

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from a strip of pouches,

- Figure 2 is a view in cross section of a "peelable" variant of the pouch in accordance with the invention, not yet sealed and extracted from a strip of pouches,

- Figure 3 is a view in cross section of the pouch from Figure 2 with its drain passage sealed, and

- Figure 4 is a view in cross section of the pouch from Figure 2 with its drain passage sealed by a different shaped sealing area.

The pouch 1 in accordance with the invention for packaging biologic liquids is made from two thermoplastics material films welded together by a weld 2 delimiting a pouch 3 along a closed path of generally rectangular shape defining two shorter sides x and x' and two longer sides z and z' when the pouch is empty and one of which said shorter sides x is interrupted, the weld 2 defining from said interruption a filler passage 4, defining a filler part 17 in said thermoplastics material films, characterized in that the other shorter side x' is interrupted, the weld defining from said interruption a drain passage 9 defining a drain part 11 in said thermoplastics material films.

The filler passage 4 is extended by a centering insertion flare or cone 5.

Substantially equidistant holes 6 are formed near two longitudinal edges of the strip, outside the path of the weld. These holes are used to feed the thermoplastics material strip an to support it in a packaging machine.

Weld areas 7 and 8 are provided to hold the two thermoplastics material films together and prevent them separating in the feed device of the packaging machine.

The drain passage 9 is extended by a centering insertion flare or cone 10.

In accordance with the invention, after filling the

pouch with its contents, the filler passage is welded shut to seal it. The weld 16 can be either at the top or at the bottom (shown in chain-dotted line) of the filler passage 4. The liquid level must be sufficiently high in the filler passage to prevent trapping any air. The weld is formed by two welding areas. The top of the liquid column is between the two welding resistors. The bottom weld is therefore made across the column of liquid and the top weld prevents the residue of liquid escaping, the residue being trapped between the two resistors.

In an advantageous embodiment of the pouch in accordance with the invention at least one of the two thermoplastics material films has in the drain part a peelable area 12 obtained by depositing a sealing and peelable material, for example wax.

The sealing and peelable material is melted locally in the sealing area 13. The cross section of the sealing area 13 is triangular in Figure 3 and of inverted V-shape in Figure 4.

To open the pouch, the operative separates the two thermoplastics material films by hand. The pouch can therefore be opened easily in the required area, delimited by its peelable area and the shape of the welding electrode. A probe or a tube can then be inserted into the opening and guided satisfactorily.

In one embodiment of the invention part of the thermoplastics films is colored, defining a colored part 14 and a marking area 15. The marking area 15 carries a drawing (not shown) seen through the transparent film and depicting the breed concerned.

According to one feature of the invention that is not shown, at least one of the two thermoplastics material films has a peelable area in the filler part (17).

The person skilled in the art will understand that although the invention has been described and illustrated

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by means of a particular embodiments, many variants are feasible within the scope of the invention as defined by the accompanying claims.

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Claims

1. A pouch (1) for packaging liquids for artificially inseminating animals, comprising two thermoplastics material films welded together by a weld (2) delimiting a pouch (3) along a closed path of generally rectangular shape defining two shorter sides (x) and (x') and two longer sides (z) and (z') when the pouch is empty and one of which shorter sides (x) is interrupted, the weld defining from said interruption a filler passage (4), defining a filler part (17) in said thermoplastics material films, characterized in that the other shorter side (x') is interrupted, the weld (2) defining from said interruption a drain passage (9) defining a drain part (11) in said thermoplastics material films.

2. A pouch according to claim 1, characterized in that at least one of the two thermoplastics material films has a peelable area (12) in the drain part (11).

3. A pouch according to claim 2, characterized in that the peelable area includes a sealing and peelable material.

4. A pouch according to claim 3, characterized in that the sealing and peelable material is wax.

5. A pouch according to any one of claims 1 to 4, characterized in that the drain passage is extended by a flare (10).

6. A pouch according to any one of claims 1 to 5, characterized in that said two thermoplastics material films are offset relative to each other in the drain part.

7. A pouch according to claim 6, characterized in that the offset is approximately 2 to 3 mm.

8. A pouch according to any one of claims 1 to 7 containing a liquid, characterized in that it has been sealed in a sealing area (13) within said peelable area, in the vicinity of the drain part of the drain passage, substantially transversely to the axis thereof.

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9. A pouch according to claim 8, characterized in that the sealing area has a triangular shape in cross section.

10. A pouch according to claim 8, characterized in that the sealing area has an inverted V-shape in cross section.

11. A pouch according to any one of claims 1 to 10, characterized in that part of the thermoplastics films constitutes a colored part (14).

12. A pouch according to claim 11, characterized in that the colored part includes an identifier.

13. A pouch according to any one of claims 1 to 11, characterized in that part of the thermoplastics films constitutes a marking area (15).

14. A pouch according to claim 11, characterized in that the marking area (15) includes an identification marking.

15. A pouch according to claim 14, characterized in that the identification marking is adapted to be seen through the film, which is transparent.

16. A pouch according to any one of claims 1 to 15, characterized in that at least one of the two thermoplastics material films has a peelable area in the filler part (17).

17. A pouch according to any one of claims 1 to 16 which contains a biologic liquid that can be used for artificial insemination.

18. A pouch according to claim 17, characterized in that the liquid usable for artificial insemination is chosen from animal semen, media and diluting agents.

19. A pouch according to claim 18, characterized in that the liquid is pig sperm.

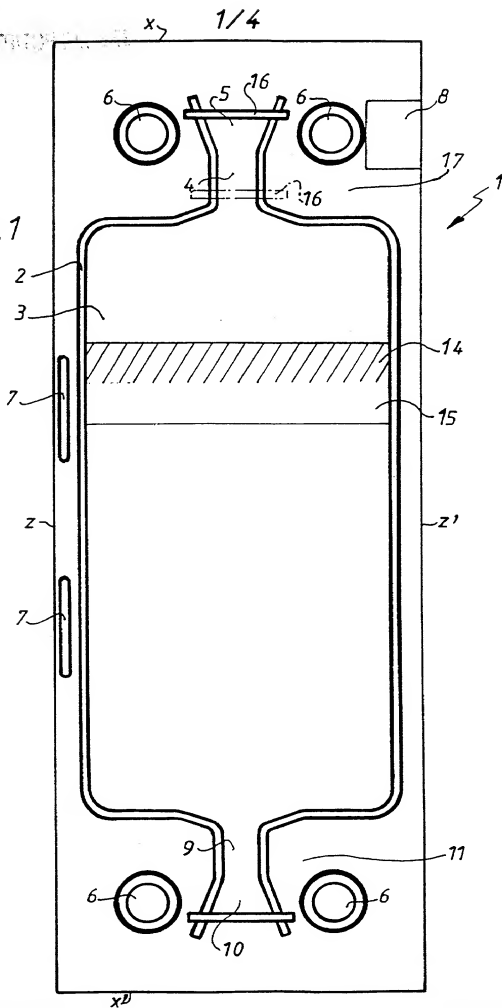
20. Use of a pouch according to claims 11 and 19 in which the color identifies a breed of pig.

21. Use of a pouch according to claims 14 and 19

in which the identification marking identifies a breed of pig.

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FIG. 1



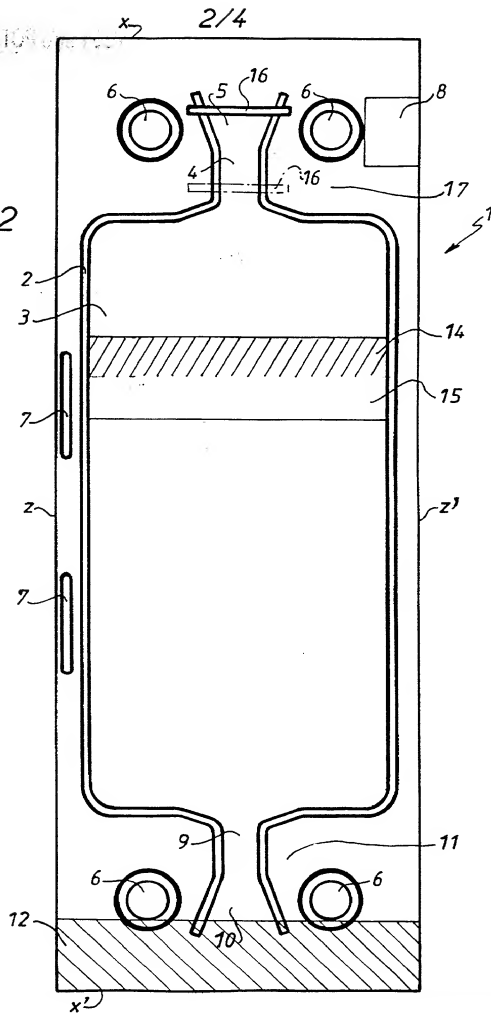
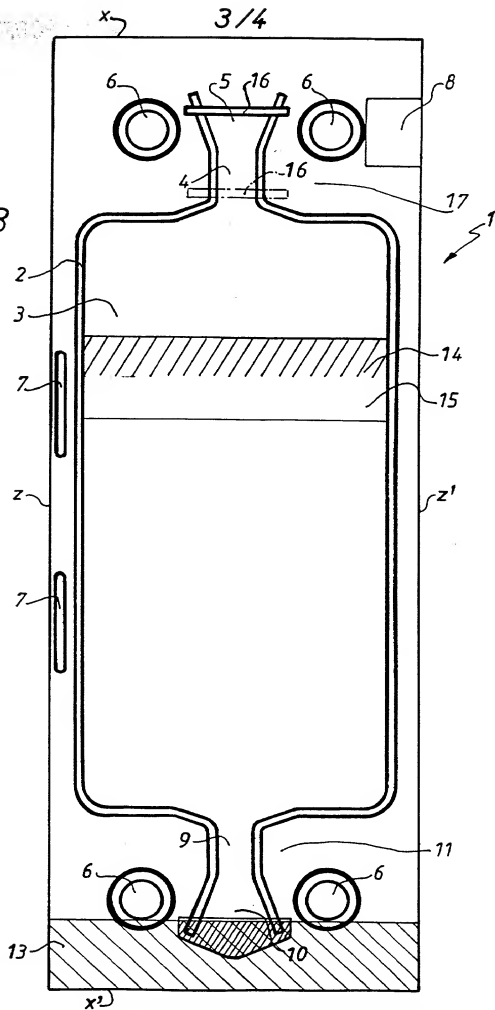
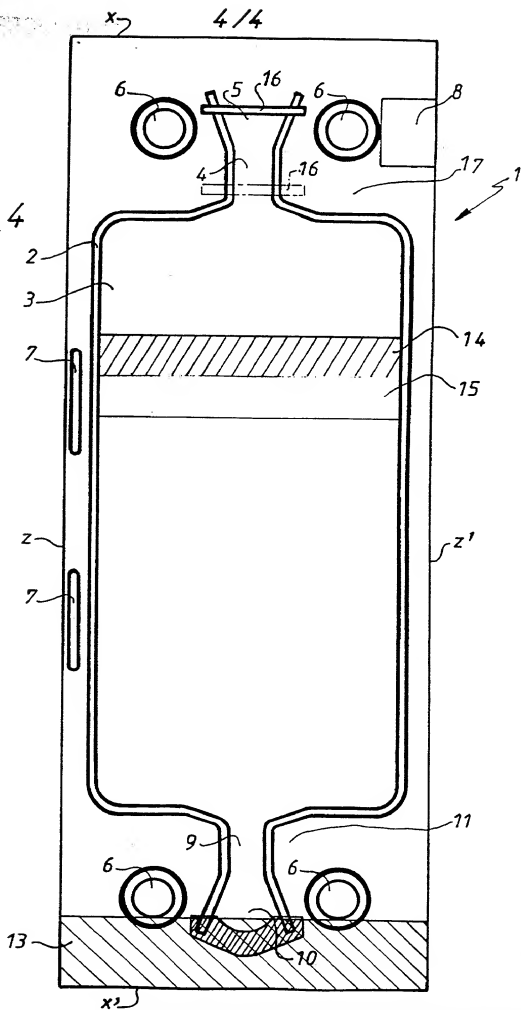


FIG. 3



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FIG. 4



Declaration and Power of Attorney for Patent Application

Déclaration et Pouvoirs pour Demande de Brevet

French Language Declaration

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

SACHET DE CONDITIONNEMENT DE
SUBSTANCES LIQUIDES POUR
L'INSEMINATION ARTIFICIELLE ANIMALE

et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:

☒ a été déposée le 18 mai 1999
sous le numéro de demande des Etats-Unis ou le
numéro de demande international PCT
PCT/FR99/01179 et modifiée le
_____ (le cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

BAG FOR PACKAGING LIQUID SUBSTANCES
FOR ANIMAL ARTIFICIAL INSEMINATION

the specification of which is attached hereto unless the following box is checked:

☒ was filed on May 18, 1999
as United States Application Number or PCT
International Application Number
PCT/FR99/01179 and was amended on
_____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

French Language Declaration

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

Prior foreign application(s)
 Demande(s) de brevet antérieure(s)
 FRANCE 98 06393
 (Number) (Country)
 (Numéro) (Pays)

 (Number) (Country)
 (Numéro) (Pays)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

(Application No.) (Filing Date)
 (N° de demande) (Date de dépôt)

 (Application No.) (Filing Date)
 (N° de demande) (Date de dépôt)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:

PCT/FR99/01179 18.05.1999
 (Application No.) (Filing Date)
 (N° de demande) (Date de dépôt)

 (Application No.) (Filing Date)
 (N° de demande) (Date de dépôt)

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365 (b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Claimed
 Droit de priorité revendiqué
 20.05.1998 ☒
 (Day/Month/Year Filed) (Jour/Mois/Année de dépôt)

 (Day/Month/Year Filed) ☐
 (Jour/Mois/Année de dépôt)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

pending
 (Status) (patented, pending, abandoned)
 (Statut) (breveté, en cours d'examen, abandonné)

 (Status) (patented, pending, abandoned)
 (Statut) (breveté, en cours d'examen, abandonné)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

French Language Declaration

POUVOIRS: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec l'Office des brevets et des marques: (mentionner le nom et le numéro d'enregistrement).

Harold Haidt, Registration No. 17,509;
 Alfred L. Haffner, Jr., Registration No. 18,919;
 Israel Blum, Registration No. 26,710

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number)

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Send Correspondence to:

MORGAN & FINNEGAN, L.L.P.
345 PARK AVENUE
NEW YORK, NY 10154

Adresser tout appel téléphonique à:
 (nom et numéro de téléphone)

Direct Telephone Calls to:
 (name and telephone number)

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Nom complet de l'unique ou premier inventeur Jean-Gérard SAINT-RAMON	Full name of sole or first inventor Jean-Gérard SAINT-RAMON
Signature de l'inventeur Date 16/12/99 Jean-Gérard SAINT-RAMON	Inventor's signature Date
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Nationalité Française	Citizenship French
Adresse postale Les Loges Boissy Les Perche 28340 LA FERTE VIDAME, France	Post Office Address Les Loges Boissy Les Perche 28340 LA FERTE VIDAME, France PRX

(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire.)

(Supply similar information and signature for third and subsequent joint inventors.)

French Language Declaration

Nom complet du troisième co-inventeur, le cas échéant Mickaël BARRE		Full name of third joint inventor, if any Mickaël BARRE	
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Nationalité Française		Citizenship French	
Adresse Postale 58 rue Beauséjour		Post Office Address 58 rue Beauséjour	
61270 RAI, France		61270 RAI, France	

Nom complet du quatrième co-inventeur, le cas échéant		Full name of fourth joint inventor, if any	
Signature de l'inventeur	Date	Fourth Inventor's signature	Date
Domicile		Residence	
Nationalité		Citizenship	
Adresse Postale		Post Office Address	

Nom complet du cinquième co-inventeur, le cas échéant		Full name of fifth joint inventor, if any	
Signature de l'inventeur	Date	Fifth Inventor's signature	Date
Domicile		Residence	
Nationalité		Citizenship	
Adresse Postale		Post Office Address	

Nom complet du sixième co-inventeur, le cas échéant		Full name of sixth joint inventor, if any	
Signature de l'inventeur	Date	Sixth inventor's signature	Date
Domicile		Residence	
Nationalité		Citizenship	
Adresse Postale		Post Office Address	

(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire.)

(Supply similar information and signature for third and subsequent joint inventors.)